

## National Institute of Standards and Technology

The National Institute of Standards and Technology (NIST) is responsible for promoting U.S. innovation and industrial competitions by advancing measurement science, standards, and technology in ways that enhance economic security, and improve our quality of life. NIST carries out this mission through the following programs.

The **NIST Laboratories** research program focuses on providing the measurements, standards, verified data, and test methods necessary to support the development of new technologies and to promote the competitive standing of the U.S. in the global economy. The world-class scientific and technical staff works closely with private industry, academic researchers, and other government agencies.

### The Hollings Manufacturing Extension Partnership (HMEP)

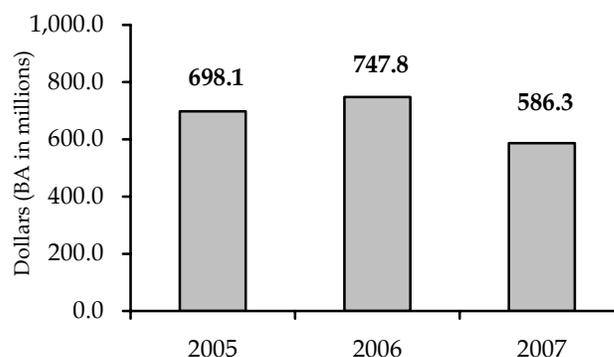
**Program** assists small manufacturing establishments in assimilating new technologies and manufacturing practices through government-industry partnerships and extension services.

The **Baldrige National Quality Program (BNQP)** is a highly visible quality management program focused on instilling the principles of continuous quality improvement in U.S. businesses and educational, health care, and non-profit organizations.

In addition, NIST has initiated a long-term program to upgrade and maintain its lab facilities in two main campuses in Gaithersburg, Maryland and Boulder, Colorado. Upgrades to these facilities, which are 35 to 45 years old, is required to support NIST research in the 21<sup>st</sup> century.

Through 2006, NIST also implemented the Advanced Technology Program to assist industry to invest in and develop high-risk technologies. The 2007 Budget proposes to terminate this program, due to the growth of venture capital and other financing sources.

**NIST Funding**



## Summary of Appropriations

### Funding Levels

<b>Appropriation</b>	2005 <u>Actual</u>	2006 <u>Estimate</u>	2007 <u>Estimate</u>	Increase (Decrease)
Scientific and Technical Research and Services	\$378,764	\$394,762	\$467,002	\$72,240
Industrial Technology Services	247,943	183,624	46,332	(137,292)
Construction of Research Facilities	72,518	173,651	67,998	(105,653)
<b>Total Appropriation</b>	<b>699,225</b>	<b>752,037</b>	<b>581,332</b>	<b>(170,705)</b>
Transfers of funds from Election Assistance Commission, STRS	2,778	2,772	4,950	2,178
Unobligated balance, rescission, STRS	0	0	0	0
Unobligated balance, rescission, ITS	(3,900)	(7,000)	0	7,000
Working Capital Fund, STRS	[2,900]	[1,300]	[9,450]	[8,150]

### **Budget Authority**

Scientific and Technical Research and Services	381,542	397,534	471,952	74,418
Industrial Technology Services	244,043	176,624	46,332	(130,292)
Construction of Research Facilities	72,518	173,651	67,998	(105,653)
<b>TOTAL, BUDGET AUTHORITY</b>	<b>698,103</b>	<b>747,809</b>	<b>586,282</b>	<b>(161,527)</b>

### **FTE**

Scientific and Technical Research and Services	1,775	1,909	2,038	129
Industrial Technology Services	276	217	107	(110)
Construction of Research Facilities	42	58	60	2
Working Capital Fund	660	726	764	38
<b>Total</b>	<b>2,753</b>	<b>2,910</b>	<b>2,969</b>	<b>59</b>

## Highlights of Budget Changes

### Appropriation: Scientific and Technical Research and Services

#### Summary of Requirements

	<u>Detailed</u>		<u>Summary</u>	
	<u>FTE</u>	<u>Amount</u>	<u>FTE</u>	<u>Amount</u>
<b>2006 Appropriation</b>			1,909	\$394,762
<b>Adjustments to Base</b>				
<b><u>Adjustments</u></b>				
Restoration of FY 2006 Deobligation Offset		\$1,000		
Less FY 2006 nuclear waste disposal		(429)		
Less FY 2006 unrequested projects		(11,888)		
Subtotal, adjustments			0	(11,317)
<b><u>Other Changes</u></b>				
2006 Pay raise		2,761		
2007 Pay raise		3,226		
Payment to the Working Capital Fund		56		
Full year cost in FY 2007 of positions financed for part year in FY 2006	5	0		
Civil Service Retirement System (CSRS)		(322)		
Federal Employees' Retirement System (FERS)		1,147		
Thrift Savings Plan		92		
Federal Insurance Contributions Act (FICA) -OASDI		166		
Health insurance		966		
Employees' Compensation Fund		(59)		
Travel:				
Mileage		2		
Per diem		4		
Rental payments to GSA		1		
Printing and reproduction		9		
Other services:				
Working Capital Fund		(2)		
Commerce Business System		1,531		
NARA		15		
Washington Gas rate increase		905		
Supplies and materials: Scientific journal subscriptions		108		
General pricing level adjustment:				
Transportation of things		15		
Rental payments to others		54		
Communications, utilities, & miscellaneous charges		248		
Other services		761		
Supplies and materials		336		
Equipment		537		
Subtotal, other cost changes		12,557	5	12,557
Less Amount absorbed			0	0
<b>TOTAL, ADJUSTMENTS TO BASE</b>			5	1,240
<b>2007 Base</b>			1,914	396,002
Program Changes			124	72,000
<b>TOTAL REQUIREMENTS</b>			2,038	468,002
Recoveries from Prior Year Obligations				(1,000)
<b>2007 APPROPRIATION</b>				467,002

**Comparison by Activity**

DIRECT OBLIGATIONS	2006 Currently Avail.		2007 Base		2007 Estimate		Increase / Decrease	
	FTE	Amount	FTE	Amount	FTE	Amount	FTE	Amount
<b>NIST Laboratories</b>								
<b>Laboratories and technical programs</b>								
Electronics & electrical engineering	258	\$49,515	258	\$50,819	258	\$50,819	0	\$0
Manufacturing engineering	111	22,362	111	22,481	115	24,481	4	2,000
Chemical science & technology	236	44,658	236	46,276	244	49,726	8	3,450
Physics	172	42,210	173	43,618	215	60,118	42	16,500
Materials science & engineering	172	33,110	172	33,961	177	38,961	5	5,000
Building & fire research	119	22,270	119	22,438	122	24,438	3	2,000
Computer science & applied math.	347	66,678	347	65,836	359	74,786	12	8,950
Standards & technology services	94	17,329	94	16,501	99	18,501	5	2,000
Innovations in Measurement Science	80	16,232	80	16,090	82	16,890	2	800
Postdoctoral fellowship program	92	11,511	92	10,937	92	10,937	0	0
Computer support	5	7,014	5	6,791	5	6,791	0	0
Business systems	31	10,524	31	12,191	31	12,191	0	0
Research support external projects	0	11,888	0	0	0	0	0	0
Subtotal, Labs & technical programs	1,717	355,301	1,718	347,939	1,799	388,639	81	40,700
<b>National research facilities</b>								
NIST center for neutron research	125	28,617	125	28,727	134	38,727	9	10,000
Center for nanoscale science and technology	20	11,154	22	11,561	56	28,561	34	17,000
Subtotal, National research facilities	145	39,771	147	40,288	190	67,288	43	27,000
Subtotal, NIST laboratories	1,862	395,072	1,865	388,227	1,989	455,927	124	67,700
<b>Baldrige National Quality Program</b>	47	7,354	49	7,575	49	7,575	0	0
<b>TOTAL DIRECT OBLIGATIONS</b>	1,909	402,426	1,914	395,802	2,038	463,502	124	67,700
<b>FINANCING</b>								
Unobligated balance, start of year	0	(5,192)	0	0	0	0	0	0
Recovery of prior year obligations	0	(1,000)	0	(1,000)	0	(1,000)	0	0
Subtotal, financing	0	(6,192)	0	(1,000)	0	(1,000)	0	0
<b>TOTAL BUDGET AUTHORITY</b>	1,909	396,234	1,914	394,802	2,038	462,502	124	67,700
Unobligated balance, rescission		0		0		0		0
Transfers from EAC		(2,772)		0		(4,950)		(4,950)
Transfers	0	1,300	0	200	0	9,450	0	9,250
<b>TOTAL APPROPRIATION</b>	1,909	394,762	1,914	395,002	2,038	467,002	124	72,000

## Highlights of Program Changes

	<u>Base</u>		<u>Increase / Decrease</u>	
	<u>FTE</u>	<u>Amount</u>	<u>FTE</u>	<u>Amount</u>
<u>NIST Laboratories</u>	1,718	\$347,363	+81	+\$42,000
<u>National Research Facilities</u>	147	\$40,076	+43	+\$30,000

As a component of the President's 10-year American Competitiveness Initiative, an increase (+124 FTE, +\$72,000) is requested for **Physical Science to Enable Innovation: A Measurement Science and Standards Initiative**.

Technological innovation drives the Nation's economic growth and sustains our competitiveness in world markets. According to the Report of the National Innovation Initiative, Council on Competitiveness, December 2004, "Innovation will be the single most important factor in determining America's success through the 21st century." A 2005 National Academy of Sciences report, *Rising Above The Gathering Storm: Energizing and Employing America for a Brighter Economic Future*, states, "Economic studies conducted before the information-technology revolution have shown that even then as much as 85% of measured growth in U.S. income per capita is due to technological change." New technologies require a sophisticated set of supporting tools to succeed. These tools include knowledgeable people with easy access to key information, measurement science, and production technologies. NIST plays a fundamental role in ensuring access to this innovation toolset.

Of the \$72,000 increase requested, a transfer of \$9,250 will be made to the NIST Working Capital Fund, for a total transfer of \$9,450.

### Initiative Components

#### **Enabling Nanotechnology from Discovery to Manufacture (+34 FTE, +\$20,000)**

The United States faces dramatic changes in manufacturing, with nanoscale manufacturing expected to be a dominant contributor to our Gross Domestic Product in the 21<sup>st</sup> century. The commercial development of new nanotechnologies depends critically on the rapid development of innovative nanoscale manufacturing and measurement methods. NIST will develop and make available the world's most advanced nanoscale measurement and fabrication methods to partners from industry, universities, and other government agencies through the Center for Nanoscale Science and Technology (CNST). Furthermore, NIST will establish the materials and process characterization, including development of reference materials and reference data, to enable scaled-up, reliable, and cost-effective manufacturing of nanoscale materials, structures, devices, and systems.

#### **NIST Center for Neutron Research (NCNR) Expansion and Reliability Improvements: A National Need (+9 FTE, +\$10,000)**

Neutron research is critical for innovative, high impact sectors employing advanced materials (e.g., superconductors, nanostructured materials, biomaterials, microelectronics, hydrogen fuel cells and storage materials). However, facilities for neutron research in the U.S. are seriously oversubscribed. NIST will expand and improve the NCNR by developing better hydrogen cold source and optical systems to deliver more neutrons to the instruments; developing a neutron scattering instrument to enable new, more sensitive, higher spatial resolution analytical tools; and improving reactor reliability to maintain and replace aging (40 year old) control systems. An additional \$12 million is requested in the Construction of Research Facilities account to undertake the NCNR expansion.

#### **Enabling the Hydrogen Economy (+25 FTE, +\$10,000)**

NIST research will enable more powerful, efficient, and durable fuel-cell designs and high-volume manufacturing through the development of measurement tools, material characterization, theory, and models that allow real-time diagnostics of hydrogen fuel cell performance; ensure accurate measures of hydrogen at points of sale; and ensure safer storage, distribution, and delivery of hydrogen in the marketplace.

#### **Manufacturing Innovation through Supply Chain Integration (+4 FTE, +\$2,000)**

The inefficient exchange of product design and business data in manufacturing and construction costs the U.S. economy in excess of \$25 billion per year. This initiative will advance industry towards a seamless global supply chain – shortening design-to-manufacturing cycle, improving product quality, and lowering costs. NIST will develop standards,

measurements, and testing tools that are fundamental to enabling efficient supply chains, maintaining competitiveness, and increasing innovation.

**Quantum Information Science - Infrastructure for 21st Century Innovation (+17 FTE, +\$9,000)**

This initiative is comprised of two complementary efforts aimed at accelerating the development of quantum information science: 1) an expanded in-house program to develop the measurement science, standards, and technology for quantum information science and 2) establishment of the Joint Quantum Institute, a strategic partnership between NIST, a university, and the National Security Agency, to leverage the strengths of these organizations. These efforts will help to secure America's lead in quantum information science by training the Nation's next generation of quantum science innovators, converting fundamental knowledge into technology, and ensuring U.S. leadership in developing a revolutionary new technology. Advances in quantum information science will enable unbreakable encryption for verifiably secure electronic financial transactions and exchange of secure information, as well as provide a new computing paradigm with vastly greater computing power.

**Structural Safety in Hurricanes, Fires, and Earthquakes: Environmental Security for the Nation (+3 FTE, +\$2,000)**

This initiative will enable a reduction in the risk of losses from extreme natural events by developing: (1) the technical tools required to enable innovations in multi-hazard risk assessment and mitigation technologies, and (2) the scientific basis to improve the codes and standards used in the design, construction, and retrofit of buildings and physical infrastructure.

**Synchrotron Measurement Science and Technology Enabling Next Generation Materials Innovation (+5 FTE, +\$5,000)**

This initiative leverages NIST's expertise in measurement science with the unique capabilities of the National Synchrotron Light Source (NSLS) at Brookhaven National Laboratory. A NIST Center for Synchrotron Measurement Science and Technology will be created at the NSLS to provide state-of-the-art measurement tools for characterizing the chemical and structural state of materials and devices through close collaborations with researchers from industry, academia, and other government agencies.

**International Standards and Innovation: Opening Markets for American Workers and Exporters (+5 FTE, +\$2,000)**

Within the industry-led U.S. voluntary standards system, NIST will assume a more proactive role as convener, facilitator, and catalyst in ensuring that the necessary underpinnings for product and process standards are in place to support full U.S. participation in global markets. This initiative will support U.S. competitiveness and innovation by ensuring that U.S. businesses are equipped to satisfy standards-related requirements in key export markets in Asia and the Americas.

**Innovations in Measurement Science (+2 FTE, +\$4,000)**

The NIST Innovations in Measurement Science Program is one of NIST's primary mechanisms for keeping pace with the measurement requirements needed for innovation in U.S. industry. This program is used to advance NIST's capabilities in the core measurement science areas underpinning technology innovation. Just as industry must innovate to survive in a competitive environment, NIST must develop innovative approaches to measurement challenges. NIST uses this program to anticipate industry needs and develop the measurement science needed by the next generation of technology.

**BioImaging: A Measurement Science and Standards Toolbox for 21<sup>st</sup> Century Medical Technology (+8 FTE, +\$4,000)**

Measurement science and standards are needed to drive innovation in imaging systems, enabling the change from observation to quantitative diagnosis and noninvasive treatment tools reducing the need for biopsies and other invasive procedures. This requires an interdisciplinary approach marrying the physical, biological, and information sciences. Partnering with the National Institutes of Health (NIH) and the bioimaging industry, NIST will utilize its expertise in the physical and information sciences to provide the necessary measurements and standards to pave the way for innovative diagnostics.

**Cyber Security: Innovative Technologies for National and Public Security (+9 FTE, +\$2,000)**

Today, there are no known methods for measuring the security of a given system. Without the necessary metrics and measurement technologies, we lack the ability to determine whether our efforts at securing the Nation's infrastructure are achieving the desired result. NIST will collaborate with industry and academia to develop metrics and measurement techniques for characterizing known and unknown vulnerabilities. Together with tools to predict expected behavior, these methodologies will provide mechanisms to assign security confidence levels, to measure improvements in the overall security of a system, and to identify and mitigate would-be attackers.

**Biometrics: Identifying Friend or Foe?** (+3 FTE, +\$2,000)

Enhanced biometric systems, with the associated test and evaluation infrastructures, have been identified as a presidential research and development priority to further reduce vulnerabilities in protecting the homeland. DHS, FBI, and the State Department (US-VISIT) currently partner with NIST to draw on and leverage NIST’s long experience and expertise in measurement science and standards in biometric technologies. NIST will develop measurements and standards to support testing and evaluation of enhanced biometric systems including approaches using multiple modes of identification.

STRS Initiative Name	Manufacturing Engineering	Chemical Science and Technology	Materials Science and Engineering	Physics	Building & Fire Research	Computer Science and Applied Math	Innovations in Measurement Science	Standards & Technology Services	National Research Science	Working Capital Fund
Enabling Nanotechnology from Discovery to Manufacture									17,000	3,000
NCNR Expansion and Engineering Reliability Improvements									10,000	
Enabling the Hydrogen Economy			8,500							1,500
Manufacturing Innovation through Supply Chain Integration	2,000									
Quantum Information Science - Infrastructure for 21st Century Innovation			8,000							1,000
Structural Safety in Hurricanes, Fires, & Earthquakes: Environmental Security for the Nation					2,000					
Synchrotron Measurement Science and Technology Enabling Next Generation Materials Innovation				5,000						
International Standards and Innovation: Opening Markets for American Workers and Exporters								2,000		
Innovations in Measurement Science									800	3,200
BioImaging - A 21st Century Toolbox for Medical Technologies		3,450								550
Cybersecurity: Innovative Technologies for National Security						2,000				
Biometrics: Identifying Friend or Foe?						2,000				
<b>STRS Total</b>	<b>2,000</b>	<b>3,450</b>	<b>16,500</b>	<b>5,000</b>	<b>2,000</b>	<b>4,000</b>	<b>2,000</b>	<b>800</b>	<b>27,000</b>	<b>9,250</b>

**Appropriation: Industrial Technology Services****Summary of Requirements**

	<u>Detailed</u>		<u>Summary</u>	
	<u>FTE</u>	<u>Amount</u>	<u>FTE</u>	<u>Amount</u>
<b>2006 Appropriation</b>			217	\$183,624
FY 2006 unobligated balance rescission				(7,000)
<b>Adjustments to Base</b>				
<b><u>Adjustments</u></b>				
Restoration of FY 2006 Deobligation Offset		\$3,800		
Balance from prior year		8,744		
Restoration of FY 2006 unobligated balance rescission		7,000		
Subtotal, adjustments			0	19,544
<b><u>Other Changes</u></b>				
2006 Pay raise		0		
2007 Pay raise		114		
Payment to the Working Capital Fund		11		
Full year cost in FY 2007 of positions financed for part year in FY 2006	(24)	0		
Civil Service Retirement System (CSRS)		(11)		
Federal Employees' Retirement System (FERS)		40		
Thrift Savings Plan		3		
Federal Insurance Contributions Act (FICA) -OASDI		6		
Health insurance		30		
Employees' Compensation Fund		(28)		
MEP Center salaries		450		
Other services:				
Working Capital Fund		(1)		
Washington Gas rate increase		16		
General pricing level adjustment:				
Rental payments to others		3		
Communications, utilities, & miscellaneous charges		12		
Other services		90		
Supplies and materials		5		
Equipment		6		
Subtotal, other cost changes		746	(24)	746
Less Amount absorbed			0	(746)
<b>TOTAL, ADJUSTMENTS TO BASE</b>			(24)	19,544
<b>2007 Base</b>			193	196,168
Program Changes			(86)	(137,292)
<b>TOTAL REQUIREMENTS</b>			107	58,876
Recoveries from Prior Year Obligations			107	(3,800)
Unobligated balance carried forward			0	(8,744)
<b>2007 APPROPRIATION</b>			107	46,332

**Comparison by Activity**

	2006 Currently Avail.		2007 Base		2007 Estimate		Increase / Decrease	
	<u>FTE</u>	<u>Amount</u>	<u>FTE</u>	<u>Amount</u>	<u>FTE</u>	<u>Amount</u>	<u>FTE</u>	<u>Amount</u>
<b>DIRECT OBLIGATIONS</b>								
Advanced Technology Program	153	\$82,961	129	\$91,522	61	\$12,544	(68)	(\$78,978)
Hollings Manufacturing Extension Partnership Program	64	112,686	64	104,646	46	46,332	(18)	(58,314)
<b>TOTAL DIRECT OBLIGATIONS</b>	<b>217</b>	<b>195,647</b>	<b>193</b>	<b>196,168</b>	<b>107</b>	<b>58,876</b>	<b>(86)</b>	<b>(137,292)</b>
<b>FINANCING</b>								
Unobligated balance, start of year		(29,598)		0		(14,375)		
Recovery of prior obligations		(3,800)		(3,800)		(3,800)		
Unobligated balance, end of year		<u>14,375</u>		<u>(8,744)</u>		<u>5,631</u>		
Subtotal, financing		(19,023)		(12,544)		(12,544)		
<b>TOTAL BUDGET AUTHORITY</b>	<b>217</b>	<b>176,624</b>	<b>193</b>	<b>183,624</b>	<b>107</b>	<b>46,332</b>		
Unobligated balance, rescission		7,000				0		
<b>TOTAL APPROPRIATION</b>	<b>217</b>	<b>183,624</b>	<b>193</b>	<b>183,624</b>	<b>107</b>	<b>46,332</b>		

**Highlights of Program Changes**

	Base		Increase / Decrease	
	<u>FTE</u>	<u>Amount</u>	<u>FTE</u>	<u>Amount</u>
<u>Advanced Technology Program</u>	129	\$91,522	-68	-\$78,978

A decrease is requested. Given the growth of venture capital and other financing sources for high-risk technologies, the 2007 Budget proposes to terminate the Advanced Technology program. The FY 2006 Appropriations were sufficient to phase out the program. No FY 2007 funds are requested. FY 2007 phase out activities will be undertaken with FY 2006 carryover funding.

<u>Hollings Manufacturing Extension Partnership</u>	64	\$104,646	-18	-\$58,314
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A decrease is requested. The Administration proposes to fund the program at \$46.3 million, a 50 percent reduction from the FY 2006 grant level. At this level, the Administration will focus funding on maintaining an effective network of centers with an emphasis on activities that promote innovation and competitiveness in small manufacturers. NIST will absorb \$296,000 of adjustments-to-base in the HMEP Program through reductions in other services. An additional \$450,000 in grants for MEP center salary increases will not be awarded.

**Appropriation: Construction of Research Facilities****Summary of Requirements**

	<u>Detailed</u>		<u>Summary</u>	
	<u>FTE</u>	<u>Amount</u>	<u>FTE</u>	<u>Amount</u>
<b>2006 Appropriation</b>			58	\$173,651
<b>Adjustments to Base</b>				
<b><u>Adjustments</u></b>				
Adjustment for FY 2006 Boulder construction		(\$13,229)		
Less FY 2006 unrequested projects		(125,378)		
Subtotal, adjustments			0	(138,607)
<b><u>Other Changes</u></b>				
2006 Pay raise		61		
2007 Pay raise		68		
Full year cost in FY 2007 of positions financed for part year in FY 2006	2	0		
Civil Service Retirement System (CSRS)		(7)		
Federal Employees' Retirement System (FERS)		24		
Thrift Savings Plan		2		
Federal Insurance Contributions Act (FICA) -OASDI		4		
Health insurance		22		
Employees' Compensation Fund		(1)		
General pricing level adjustment:				
Transportation of things		1		
Communications, utilities, & miscellaneous charges		1		
Other services		646		
Supplies and materials		31		
Equipment		2		
Subtotal, other cost changes			2	854
Less Amount Absorbed				0
<b>TOTAL, ADJUSTMENTS TO BASE</b>			<b>2</b>	<b>(137,753)</b>
<b>2007 Base</b>			<b>60</b>	<b>35,898</b>
Program Changes			0	32,100
<b>2007 APPROPRIATION</b>			<b>60</b>	<b>67,998</b>

## Comparison by Activity

	2006 Currently Avail.		2007 Base		2007 Estimate		Increase / Decrease	
	<u>FTE</u>	<u>Amount</u>	<u>FTE</u>	<u>Amount</u>	<u>FTE</u>	<u>Amount</u>	<u>FTE</u>	<u>Amount</u>
<b>DIRECT OBLIGATIONS</b>								
Construction & Major Renovations	58	\$177,069	60	\$35,898	60	\$67,998	0	\$32,100
<b>TOTAL DIRECT OBLIGATIONS</b>	58	177,069	60	35,898	60	67,998	0	32,100
<b>FINANCING</b>								
Unobligated balance, start of year		(3,418)				0		
Unobligated balance, end of year		0				0		
Subtotal, financing		(3,418)				0		
<b>TOTAL BUDGET AUTHORITY</b>	58	173,651			60	67,998		
Transfer to Working Capital Fund		0				0		
<b>TOTAL, APPROPRIATION</b>	58	173,651			60	67,998		

## Highlights of Program Changes

	<u>Base</u>		<u>Increase / Decrease</u>	
	<u>FTE</u>	<u>Amount</u>	<u>FTE</u>	<u>Amount</u>
<u>Construction and major renovations</u>	60	\$35,898	0	\$32,100

As part of the President's 10 year American Competitiveness Initiative, an increase (0 FTE, +\$20,100) is requested in support of the **NIST Facilities Improvement Plan (FIP)** for critical construction, major repair, and renovation projects at the NIST sites in Boulder, Colorado, and Gaithersburg, Maryland. Projects for the Boulder site, in 2007, include: (1) the first phase of design for the renovation of Building 1, originally constructed in 1954 (+\$6,300); and (2) the design and limited renovation of Building 4, originally temporary construction space during NIST Boulder's construction (+\$3,800). The request for safety, capacity, maintenance, and major repairs (SCMMR) funding (+\$10,000) will help NIST to ensure the safety, effectiveness, and productivity of facilities and staff at the NIST sites – all efforts to reduce long-term facilities costs and protect NIST staff and visitors.

An increase (0 FTE, +\$12,000) is requested in support of construction and major renovations for NIST Center for Neutron Research (NCNR) Expansion and Reliability Improvements.

## Appropriation: Working Capital Fund

### Comparison by Activity

	2006 Currently Avail.		2007 Base		2007 Estimate		Increase / Decrease	
	<u>FTE</u>	<u>Amount</u>	<u>FTE</u>	<u>Amount</u>	<u>FTE</u>	<u>Amount</u>	<u>FTE</u>	<u>Amount</u>
<b>DIRECT OBLIGATIONS</b>								
Direct Obligations		\$1,300		\$200		\$9,450	0	\$9,250
Reimbursable Obligations	726	177,573	726	159,279	764	159,279	38	0
WCF Investments		(670)		0		0	0	0
<b>TOTAL OBLIGATIONS</b>	726	178,203	726	159,479	764	168,729	38	9,250
<b>FINANCING</b>								
Unobligated balance, start of year		(154,725)		(94,605)		(94,605)		0
Unobligated balance, end of year		94,605		59,226		59,226		0
Offsetting collections from:								
Federal funds		(80,415)		(85,481)		(85,481)		0
Non-Federal sources		(36,368)		(38,419)		(38,419)		0
Subtotal, financing	0	(176,903)	0	(159,279)	0	(159,279)	0	0
<b>TOTAL BUDGET AUTHORITY</b>	726	1,300	726	200	764	9,450	38	9,250
<b>TRANSFERS</b>								
From other accounts		(1,300)		(200)		(9,450)		(9,250)
<b>TOTAL, APPROPRIATION</b>	726	0	726	0	764	0	38	0